



Department of Energy

West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

Recd.
Records
September 13, 2006

September 13, 2006

Vice Admiral Al H. Konetzni, USN (Ret)
President
West Valley Nuclear Services Company
10282 Rock Springs Road
West Valley, NY 14171-9799

DW:2006:0155

ATTENTION: W. M. Wierzbicki, Environmental Affairs Manager, AC-EA

SUBJECT: NYSDEC Responsiveness Summary to Comments on Draft SPDES Permit and Issuance of SPDES Permit No. NY - 000 0973 for the West Valley Demonstration Project (WVDP) – Ashford (T), Cattaraugus County

- REFERENCES: 1) Letter (96259), S. J. Doleski to West Valley Demonstration Project Permittee, "Permit Transmittal Letter Permit No. 9-0422-00005/00006, SPDES No. NY - 000 0973," dated July 27, 2006 and Associated "Responsiveness Summary," prepared by M. H. Wang, dated February 13, 2006
- 2) Letter MNM:95228 – 455.1.1, J. H. Swailes to D. E. Borschel, "Comments on Draft SPDES Permit No. NY - 000 0973 for the West Valley Demonstration Project (WVDP) – Ashford (T), Cattaraugus County," dated November 17, 2005
- 3) Letter (95025), D. E. Borschel to M. N. Maloney, "Re: DEC ID#9-0422-00005/00006, West Valley Demonstration Project," dated September 28, 2005

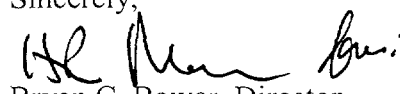
Dear Sir:

Enclosed is New York State Department of Environmental Conservation's (NYSDEC) Responsiveness Summary which addresses comments identified in Reference 2 and a final modified State Pollutant Discharge Elimination System (SPDES) Discharge Permit.

Please review the permit and ensure and that all conditions, rules, and regulations pertaining to the permit are followed.

The contents of this correspondence are not intended to impact or modify scope and/or cost. If you have any questions regarding this matter, please contact Jennifer Dundas of my staff on Extension 4287.

Sincerely,


Bryan C. Bower, Director
West Valley Demonstration Project

Enclosure: See Page 2

cc: See Page 2

JMD:96407 – 455.1.1



Vice Admiral Al H. Konetzni, USN (Ret)

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September 13, 2006

Enclosure: Reference 1

cc: C. J. Eckert, DOE-WVDP, AC-DOE, w/enc.
M. N. Maloney, DOE-WVDP, AC-DOE, w/enc.
L. J. Chilson, WVNSCO, AC-NSQA, w/enc.
J. P. Bleech, WVNSCO, AC-EA, w/enc.

JMD:96407 – 455.1.1

JMD/jmd

Responsiveness Summary

Facility: West Valley Demonstration Project, Ashord (T), Cattaraugus County
SPDES Permit No.: NY 000 0973
Prepared by: Mu Hao Wang
Date: February 13, 2006

This responsiveness summary is to address the permittee's comment letter of Nov. 11, 2005 received on the draft-modified permit. Following items follow the same sequence in the permittee's letter.

Attachment A: U.S.DOE Comments on Draft SPDES Permit No.: NY 000 0973 for the West Valley Demonstration Project, issued September 28, 2005 for Public Comment

Comment No. 1: Discrepancy in the number of significant digits for Total Mercury effluent limits at Outfall 001.

Part I, Page 4 of 26 of the permit, under "Discharge Limitations, Daily Max.," identifies the limit for Total Mercury as 0.0002 mg/l whereas the limit reported in the table within Note (1)(B) on Page 6 identifies a limit of 200 ng/l for mercury.

Response: EPA Method 1631 shall be used for analyzing mercury concentration. This method has a PQL of 0.5 ng/l. Since the water quality based effluent limit is 0.7 ng/l, during the teleconference of January 11, 2006, we agreed to unify the Mercury unit to ng/l. Following changes have been made on the revised draft permit:

Page 4 of 26 for Outfall 001 - Change Total Mercury from 0.0002 mg/l to 200 ng/l

Page 5 of 26 for Outfall 01B - Change Total Mercury from 10.0 µg/l to 10,000.0 ng/l

Page 6 of 26 for Note (1)(B) - Change Mercury Ambient Water Quality Standard from 0.0007 µg/l to 0.7 ng/l and permit limit for Mercury at 001 from 0.2 ug/l to 200 ng/l.

Note (1) (D) has modified to state that USEPA Method 1631 shall be used for Mercury analysis at Outfall 001 and 01B.

Comment No. 2: Daily load reporting specification for mercury, gm/day

Response: The permittee requested that formula in calculating Mercury (gm/day) be included in the permit. The permittee suggested formula has been modified and included as a new Note (1) (E) on Page 7 of the revised draft permit.

Comment No. 3: Reference to Pollutant Minimization Page should be removed.

Response: The permittee has installed a mercury treatment system and effluent is monitored at Outfall 01B. The reference to the Pollution Minimization Program page in Note

96259

(1)(B) of Page 6 of 26 has been deleted from the revised draft permit.

Comment No. 4: Note 2 under Special Requirements on page 13 should be adjusted to reflect new monitoring requirements.

Response: Based on the fact that some of the parameter at outfall 001 have been reduced below 2 per discharge event, Note 2 has been modified according to the permittee's suggestion. The revised Note 2 reads as "For those parameters where more than one (1) set of samples is required per discharge event under the Effluent Limitations and Monitoring Requirements for outfall 001, one (1) set of samples shall be taken at Outfall 001 approximately at the beginning of the discharge event and one (1) set of samples shall be taken prior to the discontinuance of the discharge event."

Comment No.5: Action item for short-term lithium high intensity sampling program is complete.

Response: Based on the permittee's statement that they have submitted the lithium data with the DMR report for May 1 through May 31, 2005, a copy of the lithium data has been obtained from the Bureau of Water Compliance Program. These nine (9) lithium data from Jan. 2005 to April 2005 are in the range from 0.0023 mg/l to 0.0029 mg/l. A permit modification is not necessary at this time, and the lithium requirement in the schedule of compliance page has been removed from Page 23 of the revised draft-modified permit.

Comment No. 6: Extend due date for sampling program for herbicide (Gramaxone Extra) due to lack of herbicide use. Herbicide was not applied during 2005.

Response: During the teleconference of Jan. 11, 2006, the permittee indicated that there is no plan to use the herbicide in 2006. The proposed due date of September 1, 2007 for submitting data for herbicide (Gramaxone Extra) sampling program is acceptable and is included in page 23 of the revised draft-modified permit.

The Department letter of July 27, 2005 listed three approved water treatment chemicals with their perspective dosages are incorporated in the page 15 of the attached revised draft permit.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 9

270 Michigan Avenue, Buffalo, New York, 14203-2999

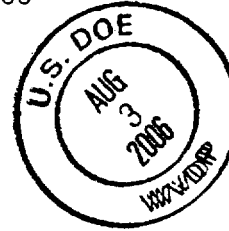
Phone: (716) 851-7165 • FAX: (716) 851-7168

Website: www.dec.state.ny.us



July 27, 2006

West Valley Demonstration Project
10282 Rock Springs Road
West Valley, New York 14171



Dear Permittee:

**PERMIT TRANSMITTAL LETTER
PERMIT NO. 9-0422-00005/00006
SPDES NO. NY - 000 0973**

Enclosed is your permit which was issued in accordance with applicable provisions of the Environmental Conservation Law. The permit is valid for only that project, activity or operation expressly authorized. If modifications are desired after permit issuance, you must submit the proposed revisions and receive written approval from the Permit Administrator prior to initiating any change. If the Department determines that the modification represents a material change in the scope of the authorized project, activity, operation or permit conditions, you will be required to submit a new application for permit.

PLEASE REVIEW ALL PERMIT CONDITIONS CAREFULLY, INCLUDING ANY MONITORING REQUIREMENTS AND/OR COMPLIANCE SCHEDULE THAT MAY BE REQUIRED. IN PARTICULAR, IDENTIFY YOUR INITIAL RESPONSIBILITIES UNDER THIS PERMIT IN ORDER TO ASSURE TIMELY ACTION AND AVOID LATE REPORTING IF REQUIRED. SINCE FAILURE TO COMPLY PRECISELY WITH PERMIT CONDITIONS MAY BE TREATED AS A VIOLATION OF THE ENVIRONMENTAL CONSERVATION LAW, YOU ARE REQUESTED TO PROVIDE A COPY OF THE PERMIT TO THE PROJECT CONTRACTOR, FACILITY OPERATOR, AND OTHER PERSONS DIRECTLY RESPONSIBLE FOR PERMIT IMPLEMENTATION (IF ANY).

The Department maintains authority regarding the terms of this permit in accordance with 6 NYCRR Part 750. This regulation may be accessed from the internet at the Department's website, <http://www.dec.state.ny.us/website/regs/750.htm> for HTML format or <http://www.dec.state.ny.us/website/dow/part750.pdf> for a two-sided format suitable for binding and copying. If you do not have website access, you may obtain a paper copy of the regulation at 270 Michigan Avenue, Buffalo, New York 14203, telephone number 716-851-7165.

If you have any questions regarding the administrative processing of this permit or request for modification, please contact this office at the above address. Technical questions relating to the specific conditions should be directed to .

Respectfully,
Steven J. Doleski
Regional Permit Administrator

DEB:vam

Attachment(s)

cc: Region 9 Division of Water, Regional Water Engineer
Permit Coordinator, Bureau of Water Permits, NYSDEC, Albany
Cattaraugus County Health Department

96259



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

Special Conditions

First 13.99

| | | | |
|-----------------------|-------------|---------------------------|--------------------|
| Industrial Code: | 9711 | SPDES Number: | NY- 000 0973 |
| Discharge Class (CL): | 03 | DEC Number: | 9-0422-00005/00006 |
| Toxic Class (TX): | T | Effective Date (EDP): | 02/01/04 |
| Major Drainage Basin: | 01 | Expiration Date (ExPD): | 02/01/09 |
| Sub Drainage Basin: | 04 | Modification Dates (EDM): | 01/01/05 |
| Water Index Number: | E-23-33-2-1 | | 09/01/06 |
| Compact Area: | IJC | | |

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

| | | | |
|---------|---------------------------|------------|--------------------------|
| Name: | U.S. Department of Energy | Attention: | Bryan C. Bower, Director |
| Street: | 10282 Rock Springs Road | | |
| City: | West Valley | State: | NY |
| | | Zip Code: | 14171 |

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

| | | | |
|---------------------------------|-----------------------------------|--------------|--|
| Name: | West Valley Demonstration Project | | |
| Location (T) | Ashford | County: | Cattaraugus |
| Facility Address: | 10282 Rock Springs Road | | |
| City: | West Valley | State: | NY |
| | | Zip Code: | 14171 |
| NYTM -E: | 199.429 | NYTM - N: | 4 706.22 |
| From Outfall No.: | 001 | at Latitude: | 42 ° 27 ' 06 " & Longitude: 78 ° 37 ' 54 " |
| into receiving waters known as: | See Below | Class: | See Below |

and; (list other Outfalls, Receiving Waters & Water Classifications)

Outfall 001: Trib (Erdman Brook, Class D) to Franks Creek, Class C
Outfalls 007 & 008: Trib (Erdman Brook, Class D) to Franks Creek, Class C
Twenty (20) Stormwater Outfalls, S02 - S40 are listed on next page.

in accordance with the effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth this permit; and 6 NYCRR Part 750-1.2 (a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

| | | | |
|--------------------------------|---|-----------|----------------|
| Mailing Name: | U.S. Department of Energy - West Valley Demonstration Project | | |
| Street: | 10282 Rock Springs Road | | |
| City: | West Valley | State: | NY |
| | | Zip Code: | 14171 |
| Responsible Official or Agent: | Bryan C. Bower, Director | Phone: | (716) 942-4312 |

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

Permit Coordinator, Bureau of Water Permits, Albany
U.S. EPA Region II
Eric Wohlers, Cattaraugus County Health Department
Erie County Department of Environment and Planning
New York Energy Research and Development Authority

| | |
|---|---------------------|
| Permit Administrator: Steven J. Doleski, Regional Permit Administrator | |
| Address: 270 Michigan Avenue, Buffalo, NY 14203 | |
| Signature: <i>Steven J. Doleski</i> | Date: 8 / 2 / 06 |

Stormwater Outfalls (total no. = 20):

| No. | Stormwater Outfall [Group No.] | Latitude °, ', " | Longitude °, ', " | Receiving Water / Class |
|-----|--------------------------------------|---------------------|----------------------|--|
| 1 | S02 [G1] | 42-27-13 | 78-39-21 | Federal Jurisdictional wetland trib. (unnamed) to Quarry Creek (C) |
| 2 | SO4 [G1] | 42-27-15 | 78-39-16 | Trib. (unnamed) to Quarry Creek (C) |
| 3 | SO6 [G2] | 42-27-14 | 78-39-03 | Trib. (unnamed) to Franks Creek (C) |
| 4 | SO9 [G3] | 42-27-10 | 78-39-03 | Trib. (unnamed) to Franks Creek (C) |
| 5 | S12 [G3] | 42-27-02 | 78-39-08 | Trib. (unnamed) to Erdman Brook (D) |
| 6 | S14 [G5] | 42-26-54 | 78-39-10 | Trib. (unnamed) to Erdman Brook (D) |
| 7 | S17 [G5] | 42-26-52 | 78-39-08 | Trib. (unnamed) to Erdman Brook (D) |
| 8 | S20 [G7] | 42-26-55 | 78-39-03 | Trib. (unnamed) to Erdman Brook (D) |
| 9 | S27 [G8] | 42-26-42 | 78-39-01 | NY Freshwater wetland/ Franks Creek (C) |
| 10 | S28 [G5] | 42-26-41 | 78-39-01 | NY Freshwater wetland/ Franks Creek (C) |
| 11 | S33 [G2] | 42-27-15 | 78-39-15 | Trib. (unnamed) to Quarry Creek (C) |
| 12 | S34 [G4] | 42-26-53 | 78-39-09 | Erdman Brook (D) |
| 13 | S35 [G8] | 42-26-45 | 78-38-54 | NY Freshwater wetland / Franks Creek (C) |
| 14 | S36 [G6] | 42-26-26 | 78-38-45 | Fed. Jurisdictional wetland trib. to unnamed water to Buttermilk Creek (C) |
| 15 | S37 [G6] | 42-26-20 | 78-38-34 | Trib. to unnamed water, which is trib to Buttermilk Creek (C) |
| 16 | S38 [G6] | 42-26-21 | 78-38-32 | Trib. to unnamed water, which is trib to Buttermilk Creek (C) |
| 17 | S39 [G6] | 42-26-20 | 78-38-30 | Trib. to unnamed water, which is trib to Buttermilk Creek (C) |
| 18 | S40 [G6] | 42-26-15 | 78-38-21 | Trib. to unnamed water, which is trib to Buttermilk Creek (C) |
| 19 | S41 [G6] | 42-26-13 | 78-38-11 | Trib. (unnamed) to Buttermilk Creek (C) |
| 20 | S42 [G6] | 42-26-06 | 78-37-54 | Trib. (unnamed) to Buttermilk Creek (C) |

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for SPDES Permit NY 000 0973

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDM and lasting until EDP + 5 YEARS. The discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

| Outfall Number & Effluent Parameter | Discharge Limitations | | Units | Minimum Monitoring Requirements | |
|--|-----------------------|--------------------|-------|------------------------------------|--------------|
| | Daily Avg. | Daily Max. | | Measurement Frequency | Sample Type |
| Outfall 001 - Process Water, NDA Treatment System, Construction Activities, Contact Size Reduction, Misc. Process Rinsewaters, Monitoring Well Development/Purging Asbestos Abatement, North Plateau Groundwater Seep (10.5 MGY), Waste solidification, cooling tower blowdown, boiler blowdown, and Storm Waters. | | | | | |
| Flow | Monitor | Monitor | MGD | 2/Discharge Event | Continuous |
| Aluminum, Total | 7.0 | 14.0 | mg/l | 1/Discharge Event | 24-hr. Comp. |
| Ammonia (as NH ₃) | Monitor | Monitor | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Arsenic, Dissolved | Monitor | 0.15 | mg/l | 1/Discharge Event | 24-hr. Comp. |
| BOD-5 | Monitor | 10.0 | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Iron, Total | Monitor | Monitor | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Zinc, Total Recoverable | Monitor | 0.48 | mg/l | twice/Year | 24-hr. Comp. |
| Solids, Total Suspended | 30 | 45 | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Cyanide, Amenable to Chlorination | Monitor | 0.022 | mg/l | twice/Year | Grab |
| Solids, Settleable | Monitor | 0.3 | ml/l | 2/Discharge Event | Grab |
| pH (Range) | (6.5 to 8.5) | | SU | 1/Discharge Event | Grab |
| Oil & Grease | Monitor | 15.0 | mg/l | 2/Discharge Event | Grab |
| Sulfate | Monitor | Monitor | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Sulfide, Dissolved | Monitor | 0.4 | mg/l | 1/Discharge Event | 24-hr. Comp. |
| Manganese, Total | Monitor | 2.0 | mg/l | twice/Year | 24-hr. Comp. |
| Nitrate (as N) | Monitor | Monitor | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Nitrite (as N) | Monitor | 0.1 | mg/l | 2/Discharge Event | 24-hr. Comp. |
| Chromium, Total Recoverable | Monitor | 0.3 | mg/l | twice/Year | 24-hr. Comp. |
| Chromium, Hexavalent Total Recoverable, Monitor | | 0.011 | mg/l | once/Year | Grab |
| Cadmium, Total Recoverable | Monitor | 0.002 | mg/l | once/Year | 24-hr. Comp. |
| Copper, Total Recoverable | Monitor | 0.030 | mg/l | twice/Year | 24-hr. Comp. |
| Copper, Dissolved | Monitor | Monitor | mg/l | twice/Year | 24-hr. Comp. |
| Lead, Total Recoverable | Monitor | 0.006 | mg/l | four/Year | 24-hr. Comp. |
| Nickel, Total Recoverable | Monitor | 0.14 | mg/l | twice/Year | 24-hr. Comp. |
| Dichlorodifluoromethane | Monitor | 0.01 | mg/l | once/year | Grab |
| Trichlorofluoromethane | Monitor | 0.01 | mg/l | once/year | Grab |
| 3,3-Dichlorobenzidine | Monitor | 0.01 | mg/l | once/year | Grab |
| Tributylphosphate | Monitor | 32 | mg/l | once/year | Grab |
| Vanadium, Total Recoverable | Monitor | 0.014 | mg/l | 1/Discharge Event | Grab |
| Cobalt, Total Recoverable | Monitor | 0.005 | mg/l | 1/Discharge Event | Grab |
| Selenium, Total Recoverable | Monitor | 0.004 | mg/l | 2/Discharge Event | Grab |
| Hexachlorobenzene | Monitor | 0.02 | mg/l | once/year | Grab |
| Alpha - BHC | Monitor | 0.00001 | mg/l | once/year | Grab |
| Heptachlor | Monitor | 0.00001 | mg/l | twice/year | Grab |
| Surfactant (as LAS) | Monitor | 0.4 | mg/l | twice/Year | Grab |
| Xylene | Monitor | 0.05 | mg/l | once/year | Grab |
| 2-butanone | Monitor | 0.5 | mg/l | once/year | Grab |
| Total Dissolved Solids | Monitor | Monitor | mg/l | 2/Discharge Event | Grab |
| Mercury, Total ⁽¹⁾ | Monitor | 200 ⁽¹⁾ | ng/l | 2/Discharge Event | 24-hr. Comp. |

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDM and lasting until EDP + 5 YEARS the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

| Outfall Number & Effluent Parameter | Discharge Limitations | | Units | Minimum Monitoring Requirements | |
|---|-----------------------|-------------------------|-------|------------------------------------|--------------|
| | Daily Avg. | Daily Max. | | Measurement Sample Frequency | Type |
| <u>Outfall 01B - Internal Monitoring Point for Mercury at Effluent of the Proposed Mercury Pretreatment Process</u> | | | | | |
| Flow | Monitor | Monitor | GPD | Weekly | Continuous |
| Mercury (T), ⁽¹⁾ | Monitor | 10,000.0 ⁽¹⁾ | ng/l | 2/month | 24-hr. Comp. |
| <u>Outfall 007 (Sanitary, Utility Wastewaters, Boiler and Cooling tower blowdown, and stormwater)</u> | | | | | |
| Flow | Monitor | Monitor | MGD | 3/Month | Continuous |
| Ammonia (as NH ₃) | Monitor | Monitor | mg/l | 3/Month | 24-hr. Comp. |
| BOD-5 | Monitor | 10.0 | mg/l | 3/Month | 24-hr. Comp. |
| Iron, Total | Monitor | Monitor | mg/l | 3/Month | 24-hr. Comp. |
| Solids, Total Suspended | 30 | 45 | mg/l | 3/Month | 24-hr. Comp. |
| Solids, Settleable | Monitor | 0.3 | ml/l | Weekly | Grab |
| pH (Range) | (6.5 - 8.5) | | SU | Weekly | Grab |
| Nitrite (as N) | Monitor | 0.1 | mg/l | 3/Month | 24-hr. Comp. |
| Oil & Grease | Monitor | 15.0 | mg/l | 3/Month | Grab |
| Chlorine, Total Residual | Monitor | 0.1 | mg/l | Weekly | Grab |

Monitoring Point 116 (This is a Pseudo Monitoring Point located in Franks Creek)

| | | | | | |
|--|---------|-----|------|-------------------|---------------------------|
| Total Dissolved Solids (C ₄), ⁽⁴⁾ | Monitor | 500 | mg/l | 2/Discharge Event | Calculated ⁽⁴⁾ |
|--|---------|-----|------|-------------------|---------------------------|

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDM and lasting until EDP + 5 YEARS the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

| Outfall Number & Effluent Parameter | Discharge Limitations | | Minimum | Monitoring Requirements | |
|---|-----------------------|------------|---------|-------------------------|----------------|
| | Daily Avg. | Daily Max. | Units | Measurement Frequency | Sample Type |
| <u>Outfall 008 (French Drain Wastewaters)</u> | | | | | |
| Flow | Monitor | Monitor | GPD | 3/Month | Instantaneous |
| BOD-5 | Monitor | 5.0 | mg/l | 3/Month | Grab |
| Iron, Total | Monitor | Monitor | mg/l | 3/Month | Grab |
| pH (Range) | (6.5 to 8.5) | | SU | 3/Month | Grab |
| Cadmium, Total Recoverable | Monitor | 0.002 | mg/l | 3/Month | Grab |
| Lead, Total Recoverable | Monitor | 0.006 | mg/l | 3/Month | Grab |
| <u>Sum of Outfalls 001, 007 and 008</u> | | | | | |
| Iron, Total (3) | Monitor | 0.30 | mg/l | 3/Month | Calculated (3) |
| BOD-5 (2) | 5.0 | Monitor | mg/l | 3/Month | Calculated (2) |
| <u>Sum of Outfalls 001 and 007</u> | | | | | |
| Ammonia (as NH ₃) | 1.49 | 2.1 | mg/l | 3/Month | Calculated (2) |

Notes:

(1) Mercury (T):

- (A) No further action is needed. Previous requirements related to the installation of mercury pre-treatment have been completed.
- (B) Limit at 001: The permit limit of 200 ng/l at Outfall 001 is an enforcement compliance limit. The ambient water quality standard for mercury is 0.7 ng/l. According to DEC permit drafting policy, no substances shall be limited at a level below the practical quantitation limit (PQL). Based on Division of Water (DOW) mercury policy, permittee shall use EPA Method 1631 (PQL = 0.5 ng/l) for mercury analysis, gram/day [(see Note (1)(E))] shall also be reported on the DMR and 200 ng/l [i.e. 0.2 ug/l] as the enforcement compliance limit. The following Table summarizes the above concept:

| Outfall No. & Effluent Parameter | Ambient Water Quality Standard | | WQ Based Effluent Limit | Enforcement Compliance Limit per Division Mercury Policy | | | EPA Method 1631 |
|--|-----------------------------------|------|----------------------------|---|------|-------|--------------------|
| | Standard | Unit | Basis | Limit | Unit | Basis | PQL, ng/l |
| 001 - Mercury (T) | 0.7 | ng/l | Deferred | 200 | ng/l | BPJ | 0.5 |

- (C) Limit at 01B: Limit at the internal monitoring point 01B is based on the level that can be achieved by the best available treatment technology.

(D) EPA Method 1631 shall be used for Mercury analysis at both Outfall 001 and 01B.

When using analysis method 1631, following provisions are allowed:

- (i) Field Blank - The permittee will be allowed to submit data (both sample results and blank data to be included) when the field blank fails the method specified criteria. The first time this occurs, only the data needs to be submitted. For any subsequent field blank criteria failures, the permittee must conduct an investigation into the source(s) of the contamination and describe steps taken to eliminate the contamination.
- (ii) Non detect for reagent blank - It is acceptable to report the mercury results as non-detect when the reagent blank is < 0.2 ng/l in accordance with the provisions contained in Section 12.4.1 of EPA Method 1631.
- (iii) Blank corrected results - We will allow the blank corrected values for mercury as identified in Section 12.4.2 of EPA Method 1631 with a condition that the blank values that are used for the corrections be reported as well. This note is included in the revised draft permit.

(E) When calculating gm/day for Mercury, following formula shall be used:

$$\text{Daily Average (gm/day): Total Mercury} = \frac{\sum (C_i \times F_i) \times 3.785}{N \times 1,000}$$

C_i = specific measured mercury concentration for samples obtained at Outfall 001, in ng/l

F_i = specific measured flow for the corresponding 24-hour composite sample collection period, in MGD

N = frequency of sample collection during the monthly monitoring period, pursuant to Page 4 of the permit, in days

Daily Maximum is the highest calculated value, calculated as follows: $(C_i \times F_i \times 3.785)/1,000$ during the monthly monitoring period, where C_i and F_i are defined above.

(2) BOD-5 and Ammonia: A pollutant's concentration, C in mg/l, shall be calculated from the sum of all its individual mass discharge rates, i.e., $\sum M_i$, where M_i represents the pollutant's mass discharge rate in lbs/day from a specific outfall, and the sum of all the individual outfall flowrates; i.e., $\sum F_i$, where F_i represents a specific outfall flowrate in MGD units, and with all measurements at each of the outfalls taken approximately during the same time period.

$$C \text{ (mg/l)} = \frac{\sum M_i \text{ (lbs/day)}}{\sum F_i \text{ (MGD)} \times 8.34}$$

(3) Iron, Total: Net effluent limitation applicable. The following procedures will be used to calculate the net value and should be submitted as part of the DMR.

$$\text{Outfall 001: } M_1 = \left(\frac{X_1 + X_2}{2} \right) V_1$$

M_1 = mass of iron discharged from Outfall 001, milligrams per month.

x_1, x_2 = iron concentration (mg/l) in each of at least two samples from Outfall 001*

V_1 = volume of Outfall 001 discharge, liters per month, as calculated by $(Q)(T)$, where Q = average discharge rate calculated from daily weir readings and T = total time of discharge.

$$\text{Outfall 007: } M_7 = \left(\frac{X_1 + X_2 + X_3}{3} \right) V_7$$

M_7 = mass of iron discharged from Outfall 007, milligrams per month.

x_1, x_2, x_3 = iron concentration (mg/l) in each of at least three samples from Outfall 007*.

V_7 = total volume of Outfall 007, liters per month, as measured by flow totalizer recordings.

$$\text{Outfall 008: } M_8 = \left(\frac{X_1 + X_2 + X_3}{3} \right) V_8$$

M_8 = mass of iron discharged from Outfall 008, milligrams per month.

x_1, x_2, x_3 = iron concentration (mg/l) in each of at least three samples from Outfall 008*.

V_8 = total volume of Outfall 008, liters per month, as calculated by the average of three instantaneous flow rate measurements in liters/day multiplied by days per month.

$$\text{Raw Water: } M_{RW} = \left(\frac{X_1 + X_2 + X_3 + X_4}{4} \right) V_{RW}$$

M_{RW} = mass of iron entering the potable water treatment plant, milligrams per month.

x_1, x_2, x_3, x_4 = iron concentration in each of four sample of raw water*.

V_{RW} = total volume of raw water entering the potable water treatment plant per month as measured by flow totalizer recordings.

$$\text{IRON DISCHARGE CONCENTRATION (mg / l)} = \frac{M_1 + M_7 + M_8 - M_{RW}}{V_1 + V_7 + V_8}$$

* Where more than the minimum number of iron samples are collected, all measured values shall be factored into the calculation.

(4) Total Dissolved Solids: The calculated dissolved solids (C_4) in the Franks Creek at pseudo monitoring point 116 will be performed according to the following formula using flow augmentation concept and should be submitted as part of DMR.

$$(Q_1)(c_1) + (Q_2)(c_2) + (Q_3)(c_3) = (Q_4)(c_4)$$

where: Q_1 = Flow from Outfall 001, million gallons per day (MGD).

c_1 = TDS concentration in Outfall 001, mg/l

Q_2 = Flow in Franks Creek, MGD (without Outfall 001), measured at WNSP 006.

c_2 = TDS concentration in Franks Creek, mg/l (without Outfall 001), measured at WNSP 006.

Q_3 = Flow of augmentation water, MGD.

c_3 = TDS concentration in augmentation water, mg/l.

$Q_4 = Q_1 + Q_2 + Q_3$, MGD (flow in Franks Creek including Outfall 001).

$c_4 \leq 500$ mg/l (TDS concentration in Franks Creek including Outfall 001).

Prior to discharge of Lagoon 3, the permittee shall measure TDS in Lagoon 3 with a composite grab sample, and measure TDS in its raw water and Franks Creek with grab samples; measure flow in Franks Creek; determine the rate at which Lagoon 3 will be discharged; and calculate the volume of augmentation water required.

Once per day during the discharge of Lagoon 3, the permittee shall monitor flow and TDS in Franks Creek and the raw water supply. As soon as the TDS concentration has been determined, the permittee shall perform the above calculation with the new variables, and adjust Lagoon 3 discharge or augmentation water as necessary.

Special Requirements for Stormwater Outfalls:

1. Stormwater Outfalls and their grouping are listed in the following Table.

Table A: Stormwater Outfalls

| Group | Stormwater Outfall | Description of Stormwater | |
|---------|-----------------------------------|---|---------------------------|
| | | Stormwater runoff from following activities | construction activity |
| Group 1 | S02; S04 | Surface discharge of non-storm, non-process, non-cooling water sources ⁽¹⁾ and stormwater associated with industrial activity and construction activity ⁽²⁾ | (2A) + (2B) + (2C) + (2D) |
| Group 2 | S06; S33 | Same as Group 1 | (2B) + (2C) + (2D) |
| Group 3 | S09; S12 | Same as Group 1 | (2B) + (2C) + (2D) |
| Group 4 | S34 | Same as Group 1 | (2B) + (2C) + (2D) |
| Group 5 | S14; S17; S28 | Same as Group 1 | (2B) + (2C) + (2D) |
| Group 6 | S36; S37; S38; S39; S40; S41; S42 | Same as Group 1 | (2C) + (2D) |
| Group 7 | S20 | Same as Group 1 + storm water runoff from storm water outfalls W01 and W06 of NYS Licensed Disposal Ares, NY 026 9271). | (2C) + (2D) |
| Group 8 | S27; S35 | Same as Group 1 | (2B) + (2C) + (2D) |

- Notes:**
- (1) Non-process, non-storm, non-cooling water sources, include air conditioning condensate, fire hydrant flushings, testing of fire fighting equipment (water only fire suppression), potable water sources including water flushings, vegetation watering, uncontaminated inflow and infiltration, leakage from raw water conveyance system, routine external building washdown and vehicle washing which does not use detergents or other compounds, pavement washwaters where spill or leaks of toxic or hazardous materials, have not occurred or where the spill material has been removed, springs, foundation and footing drains where flows are not contaminated with process materials or wastes.
- (2) Construction activity has the following categories which include:
- (2A) construction of Remote Handled Waste Facility (RHWF) which includes soil clearing, regrading, filling, and paving, in a 2.5 acre area of on-going soil disturbance (run-off from RHWF construction is tributary to Outfalls S02 & S04);
 - (2B) structure (building, tanks, treatment units) demolition, removal, and associated restoration, including regrading, filling, and erosion control establishment (run-off from these activities is potentially tributary to Outfalls S02, S04, S06, S09, S12, S14, S17, S20, S27, S28, S33, S34, & S35);
 - (2C) perpetual, route, and preventive maintenance of infrastructure, including repair, reconstruction, rehabilitation, and replacement of buildings, fences, sheds shelters, site service roads, road embankments, parking areas, equipment storage hardstands, railroad (track, bed, and ballast), potable water, sewer and other utility (electrical, fire, etc.) service lines and structures (e.g. access chambers, pits, tanks, etc.), water supply dams, and storm water conveyance system (including culverts, inlet chambers, and earthen swales, pile storage of spoils (e.g. sediment and debris from storm water conveyance cleaning) and soil resulting from perpetual maintenance activities, and soil regrading and stabilization activities to control erosion (runoff from these activities is potentially tributary to Outfalls S02, S04, S06, S09, S12, S14, S17, S20, S27, S28, S33, S34, S35, S36, S37, S38, S39, S40, S41, & S42); and
 - (2D) miscellaneous, relatively minor activities, including installation or removal of environmental monitoring or security equipment [runoff from these activities is potentially tributary to same outfall list in item no. (2C) above.]

2. The permittee shall conduct semi-annual (2 times per year) monitoring on the stormwater outfalls. The permittee shall attempt to select one storm event during the period from January to June and another storm event from July to December.

3. For each storm event, the permittee shall conduct:

(i) Flow monitoring: The permittee shall collect samples from a storm event meeting the following criteria:

- a. Greater than 0.1 inches;
- b. At least 72 hours from the previously measurable (> 0.1 inches rainfall) storm event; and
- c. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area.

Note: Samples taken during storm events that do not meet the above criteria are acceptable, but must be accompanied by an explanation.

The permittee shall obtain the following information for each storm event sampled:

- a. Date of storm event;
- b. Duration of storm event (in minutes);
- c. Total rainfall during the storm event (in inches);
- d. Number of hours between the storm event sampled and the end of the previous measurable (> 0.1 inch rainfall) storm event;
- e. Total flow from the rain event (in gallons); max. flow rate during the storm event; and
- f. A description of the method of flow measurement.

(ii) Sampling:

Minimum sampling parameters at stormwater outfalls are listed in Table B.

For pH, and oil & grease, grab samples taken during the first 30 minutes (or as soon thereafter as practicable) of the discharge must be used.

For all other sampling parameters listed in Table B, both a grab sample collected during the first 30 minutes (or as soon thereafter as practicable) of the discharge and a flow-weighted composite shall be taken for the entire event or for the first three hours of the event.

Table B – Minimum Sampling Parameters for the Stormwater (SW) Outfalls using Rotational Monitoring Sequence

| SW Group No. | SW Outfall | Monitoring parameters and compliance limits * | | | Rotational Monitoring Sequence |
|---|---|--|---|--|--|
| | | Group A | Group B | Group C | |
| 1 | S02 S04 | pH *1 Oil & Grease *2 BOD ₅ TSS TDS Phosphorus, T. | Aluminum Iron Copper (TR) Lead (TR) Zinc (TR) | Total Nitrogen (as N), TKN Nitrate, Nitrogen (as N) Nitrite, Nitrogen (as N) Ammonia, Nitrogen (as NH ₃) Cadmium (TR) Chromium (TR), Chromium (+6) (TR) Selenium (TR), Vanadium (TR) | <u>Requirements:</u> a). The permittee shall conduct semi-annual (2 times per year) monitoring on the stormwater outfalls. b). Semi-annual monitoring shall be equally distributed among the SW outfalls within SW Group. For SW groups containing more than two (2) outfalls within each group, outfalls should be sampled in a rotational sequence to sample at least one (1) outfall in each group during each semi-annual, monitoring interval. The outfall rotational monitoring sequence in each group shall be repeated until all outfalls in that group have been sampled. For Group 4, there is only one outfall S34 in the Group, the semi-annual monitoring shall be conducted at that outfall. c). The permittee shall attempt to select one storm event during the period from January to June and another storm event from July to December. The stormwater reports shall be appended to the June and December DMR and sampling data reported on the June and December DMR. |
| 2 | S06 S33 | Same as Group 1 | Same as Group 1 | Surfactant (as LAS) | |
| 3 | S09 S12 | Same as Group 1 | Same as Group 1 | Total Nitrogen (as N), TKN Nitrate, Nitrogen (as N) Nitrite, Nitrogen (as N) Ammonia, Nitrogen (as NH ₃) Alpha-BHC | |
| 4 | S34 | Same as Group 1 | Same as Group 1 | Surfactant (as LAS) | |
| 5 | S14 S17 S28 | Same as Group 1 | Same as Group 1 | Total Nitrogen (as N), TKN Nitrate, Nitrogen (as N) Nitrite, Nitrogen (as N) Ammonia, Nitrogen (as NH ₃) Sulfide, Surfactant (as LAS), Vanadium (TR), Settleable Solids | |
| 6 | S36 S37 S38 S39 S40 S41 S42 | Same as Group 1 | Same as Group 1 | Same as Group 5 | |
| 7 | S20 | Same as Group 1 | Same as Group 1 | Total Nitrogen (as N), TKN Nitrate, Nitrogen (as N) Nitrite, Nitrogen (as N) Ammonia, Nitrogen (as NH ₃) Sulfide, Surfactant (as LAS) | |
| 8 | S27 S35 | Same as Group 1 | Same as Group 1 | Total Nitrogen (as N), TKN Nitrate, Nitrogen (as N) Nitrite, Nitrogen (as N) Ammonia, Nitrogen (as NH ₃) Surfactant (as LAS) | |
| <u>Notes:</u> * Compliance limits: *1 - pH data shall be reported from a representative Outfall from each group and from a on-site rain gauge during the storm water discharge sampling event. | | | | | |

4. Reporting:

The permittee shall summarize, analyze and report the stormwater monitoring data to the address listed in the Recording, Reporting and additional Monitoring Requirement page of this permit. The stormwater reports will be due no later than the 28th day of the month following the end of each reporting period with the regular DMR. This means that the stormwater reports should be appended to the June and December DMR.

5. Prohibition of non-storm water discharges:

Discharges of material other than storm water must be in compliance with the provisions contained in the non-storm water portions of this permit. However, the following non-storm water discharges may be authorized by this permit provided that the non-storm water component of the discharge is in compliance with the practices and provisions developed in the BMP Plans as required by this permit: discharges from fire fighting activities; fire hydrant flushing; potable water sources including waterline flushing; irrigation drainage; lawn watering; routine external building washdown which does not use detergents or other compounds; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air-conditioning condensate; spring; uncontaminated ground water seepage; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

5. Storm water pollution prevention (SWPP) plans:

Stormwater water pollution prevention plans shall be prepared in accordance with good engineering practices and in accordance with the factors outlined in 40 CFR 125.3(d)(2) or (3) as appropriate and can be combined into one document with the Best Management Practices Plan. SWPPP related to the stormwater discharges from construction activity should follow requirements outlined in the "General Permit for Stormwater Discharges from Construction Activity - Permit No. GP-02-01."

The SWPP plans shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

The permittee has submitted the SWPP plan on May 18, 2005.

Special Requirements:

- (1) The permit application must list all the corrosion/scale inhibitors or biocidal type compounds used by the permittee. If use of new cooling water additives is intended, application must be made prior to use.

Following water treatment chemicals (with their usage noted) approved to use are incorporated in the Page noted as "Water Treatment Chemicals Requirements" of this permit.

Control IS104 (Boiler Water),
Flogard POT803 (Potable water),
Dearborn 547,
Optisperse CL362 (Boiler Water),
Spectrus OX103 (a.k.a. Betz Entec 367) (Cooling Tower Water),
Klar Aid 2403,
Steamate 2005
Continuum AT220 (Cooling Tower Water),
Klar Aid PC 313 (Raw Water Supply Treatment),
Aquafloc 409,
Diversity F906 Low Temperature Emulsifier,
Sodium Silicate,
Super Water Wetter,
GE AF 9020 Silicone Antifoam Emulsion,
Steamate NA701 (Boiler Water),
Ferroquest FQ751 and Ferroquest FQ 752 (Vitrification Non-Contact Cooling/Chiller System),
Corrshield MD400 (Vitrification Non-Contact Cooling/Chiller System),
Super Wet and Heavy Duty Concentrate, and
Special Respirator Cleaner Plus

- (2) For those parameters where more than one (1) set of samples is required per discharge event under the Effluent Limitations and Monitoring Requirements for outfall 001, one (1) set of samples shall be taken at Outfall 001 approximately at the beginning of the discharge event and one (1) set of samples shall be taken prior to the discontinuance of the discharge event.
- (3) The quantities or concentrations of radionuclides in a United State's Department of Energy's (USDOE) discharge are subject to the requirements in USDOE Order Nos. 450.1 (Environmental Protection Program) and 5400.5 (Radiation Protection of the Public and the Environment).
- (4) Prior to the discharge of any DOE source subject to the requirements specified in the United States Department of Energy's (USDOE) Order No. 5400.5, DOE shall submit to the Department's regional office results of the radiological analysis that pre-qualified the source for discharge. Radiological analysis submitted to the Department shall be in a tabular format, that will include in an adjacent column, DOE radiological effluent limitations for comparison purposes.
- (5) Blank. [Previous requirement has been deleted.]
- (6) A complete NDA - Trench Water characteristic analysis shall be conducted and submitted to the Department within 6 months of the commencement of operation of the NDA - Treatment Facilities. All analysis listed in part V of Form 2C shall be performed.
- (7) The permittee is allowed to discharge construction wastewaters up to 7.5% of the Lagoon #2 capacity (2,500,000 gal) under the condition that the substances in the construction wastewaters are covered by this permit. Any construction wastewater that has substances not covered by this permit should receive prior approval for discharge from NYSDEC.
- (8) Submit to the Department's Regional Office and Bureau of Water Permits, 625 Broadway, Albany, New York a copy of each Environmental Monitoring Report to be prepared annually for the West Valley Demonstration Project.

ACTION LEVEL REQUIREMENTS (TYPE I)

The parameters listed below have been reported present in the discharge but at levels that currently do not require water quality or technology based limits. Action levels have been established which, if exceeded, will result in reconsideration or water quality or technology based limits.

Routine action level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If submission of DMR's is not required by this permit, the results shall be maintained in accordance with instructions on the RECORDING, REPORTING AND MONITORING page of this permit.

If any of the action levels is exceeded, the permittee shall undertake a short-term, high-intensity monitoring program for this parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three operating days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the action level was first exceeded. Results may be appended to the DMR or transmitted under separate cover to the addresses listed on the RECORDING, REPORTING AND MONITORING page of this permit. If levels higher than the actions levels are confirmed the permit may be reopened by the Department for consideration of revised action levels or effluent limits.

The permittee is not authorized to discharge any of listed parameters at levels which may cause or contribute to a violation of water quality standards.

| <u>Outfall Number & Effluent Parameter</u> | <u>Action Level</u> | <u>Units</u> | <u>Minimum Monitoring Requirements</u> | <u>Measurement Frequency</u> | <u>Sample Type</u> |
|--|---------------------|--------------|--|------------------------------|--------------------|
| <u>001</u> | | | | | |
| Barium | 0.5 | mg/l | Annual | | 24-hr. Comp. |
| Antimony | 1.0 | mg/l | Annual | | 24-hr. Comp. |
| Chloroform | 0.3 | mg/l | Annual | | Grab |
| Titanium | 0.65 | mg/l | Semi-Annual | | 24-hr. Comp. |
| Bromide | 5.0 | mg/l | Quarterly | | 24-hr. Comp. |
| Boron | 2.0 | mg/l | Quarterly | | 24-hr. Comp. |
| <u>007: Sanitary and Utility Wastewaters</u> | | | | | |
| Chloroform | 0.20 | mg/l | Annual | | Grab |
| <u>008: French Drain Effluent</u> | | | | | |
| Silver, Total | 0.008 | mg/l | Annual | | Grab |
| Zinc, Total | 0.100 | mg/l | Annual | | Grab |
| Arsenic | 0.17 | mg/l | Annual | | Grab |
| Chromium | 0.13 | mg/l | Annual | | Grab |

WATER TREATMENT CHEMICAL (WTC) REQUIREMENTS

New or increased use of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed WTCFX Form for each WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. **The majority of WTC authorizations do not require formal SPDES permit modification.** WTCs which are used in closed systems and cannot be discharged or those which are discharged to municipal STP do not require DEC review. **WTC use and discharge questions or requests for forms** should be directed to the DEC staff person who developed your SPDES permit. If you are not sure who that is, contact the DEC staff person who last inspected your facility.

Examples of WTCs include, biocides, coagulants, conditioners, corrosion inhibitors, defoamers, flocculants, scale inhibitors, sequestrants, and settling aids. DEC staff may also direct you to use a WTCFX Form for review and authorization of substances other than WTCs, e.g. process chemicals.

The permittee must demonstrate that the use and discharge of any WTCs containing **phosphorus**, tributary to the Great Lakes Basin or other ponded waters, is necessary and that no acceptable alternatives exist. Please note that in some cases your permit may require modification to regulate phosphorus.

Generic WTC Usage Requirements

- WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.
- The discharge shall not cause or contribute to a violation of water quality or an exceedance of ambient water quality criteria.
- **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 5 years. This period may be extended by request of the DEC.
- **The permittee shall provide an annual report**, attached to the January DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

List of WTCs Authorized for Use and Discharge*

| Affected Outfall(s) | Dosage (#/D) Avg Max | | WTC Manufacturer | Product Name | WTC Function |
|--------------------------------------|----------------------------|----|---------------------|---|--|
| 007 (Primary) and 001 (Alternate) | 6 | 12 | BetzDearborn | Klar Aid PC313 | Coagulant for raw water supply |
| 007 (Primary) and 001 (Alternate) | 9 | 18 | BetzDearborn | Flogard POT803 | Corrosion Inhibitor used in finished water distribution and heat transfer |
| 001 | | | GE - Betz | Spectrus OX103 (a.k.a.BetzEntec 367) | Biocide |
| 001 | | | GE - Betz | Continuum AT220 | Scale and corrosion inhibitor and dispersant |
| 001 | | | GE - Betz | Steamate NA701 | Corrosion inhibitor |
| 001 | | | GE - Betz | Cortrol IS104 (formerly Dearborn 66) | Oxygen Scavenger |
| 007 (Primary) and 001 (Alternate) | 2.5 | 4 | BetzDearborn | Optisperse CL362 | Boiler water treatment - Scale inhibitor and dispersant |
| 001 | | | Betz-Dearborn | Ferroquest FQ751 | Neutral pH iron cleaner |
| 001 | | | Betz-Dearborn | Ferroquest FQ752 | pH adjustment & rust deposit removal/transport |

| Affected Outfall(s) | Dosage (#/D) | | WTC Manufacturer | Product Name | WTC Function |
|---------------------|--------------|-----|--|---|---------------------------------|
| | Avg | Max | | | |
| 001 | | | GE-Betz | Corrshield MD400 | Corrosion inhibitor |
| 001 | | | Diversey Lever | Diversey F906 Low Temperature Emulsifier (a.k.a. Diverdet 2A) | Emulsifier |
| 001 | | | PQ Corp., Occidental Chemical Corp., & J.T. Baker | Sodium Silicate | Corrosion inhibitor & retardant |
| 001 | | | Abatement Technologies | Super Water Wetter | Wetting agent |
| 001 | | | GE | GE AF 9020 Silicone Anti-Foam Emulsion | Foam Suppressant |
| 001 | | | Georgia Steel & Chemical Co. | Special Respirator Cleaner Plus | Detergent & germicide |
| 001 | | | Georgia Steel & Chemical Co. | anti-foam AG-351 (a.k.a. GE Anti-Foam 1410) | Foam Reducing agent |
| 007 | | | GE - Betz | Klar Aid PC313 | Coagulant |
| 007 | | | GE - Betz | Flogard POT803 | Coagulant |
| 007 | | | GE - Betz | Steamate NA701 | Corrosion Inhibitor |
| 007 | | | GE - Betz | Cortrol IS104 (formerly Dearborn 66) | Oxygen Scavenger |
| 007 | | | GE - Betz | Optisperse CL362 | Scale Inhibitor & dispersant |
| 007 | | | PQ Corp., Occidental Chemical Corp., and J.T. Baker | Sodium Silicate | Corrosion Inhibitor |
| 007 | | | Abatement Technologies | Super Water Wetter | Wetting agent |

In addition to the above approved water treatment chemicals, the following substances and treatment (filtration) media are also acceptable to use:

1. Outfall 001 - Sodium hydroxide, potassium hydroxide, sulfuric acid, hydrogen peroxide, nitric acid, brine solution, hydrogen cation exchange resin, metal oxide aluminosilicate ion exchange resins, anion exchange resin, sodium cation exchange resin, titanium-coated zeolite, sand, sodium hypochlorite, aluminum hydroxide, and bentonite clay.
2. Outfall 007 - Sodium hydroxide, brine solution, sodium cation exchange resin, anion exchange resin, sulfuric acid, sodium bisulfite, sodium hypochlorite, sodium bicarbonate, bentonite clay, aluminum hydroxide, sand and sand, garnet and anthracite mixture.

* - Authorized WTCs must either be listed above or identified in a letter sent to the permittee by the DEC subsequent to issuance of this permit page. In cases where a WTC is listed above and in a letter from the DEC, the more recent document will control.

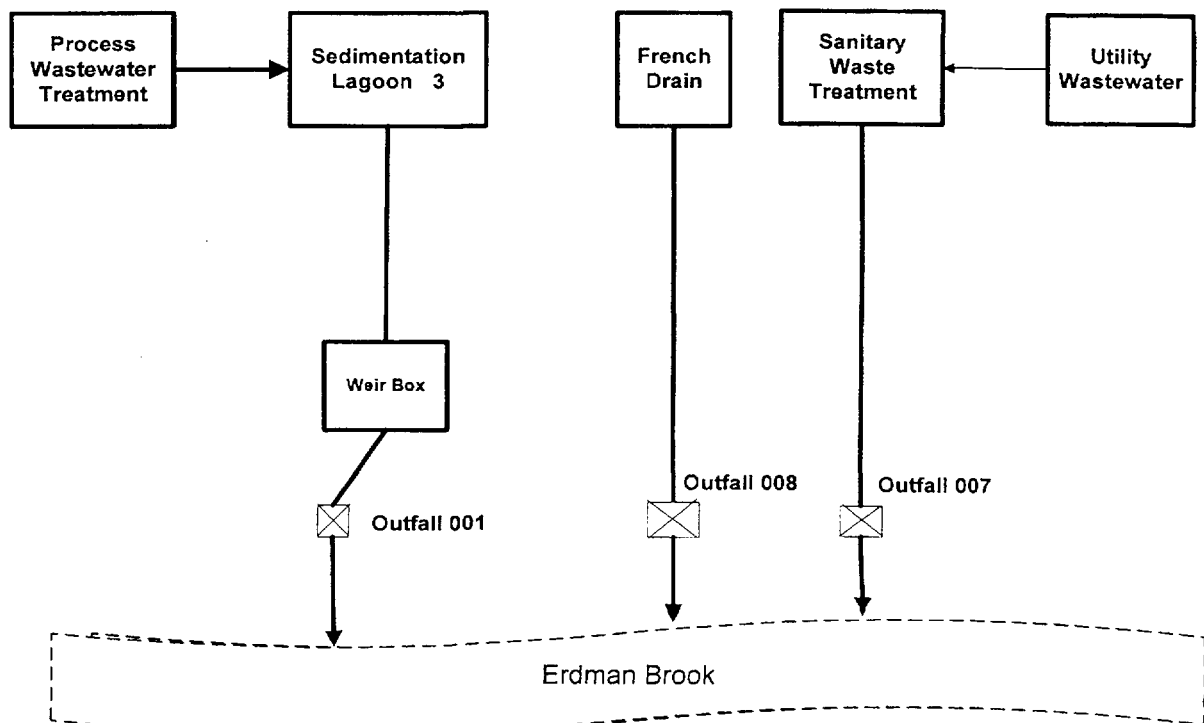
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when measurements were made.

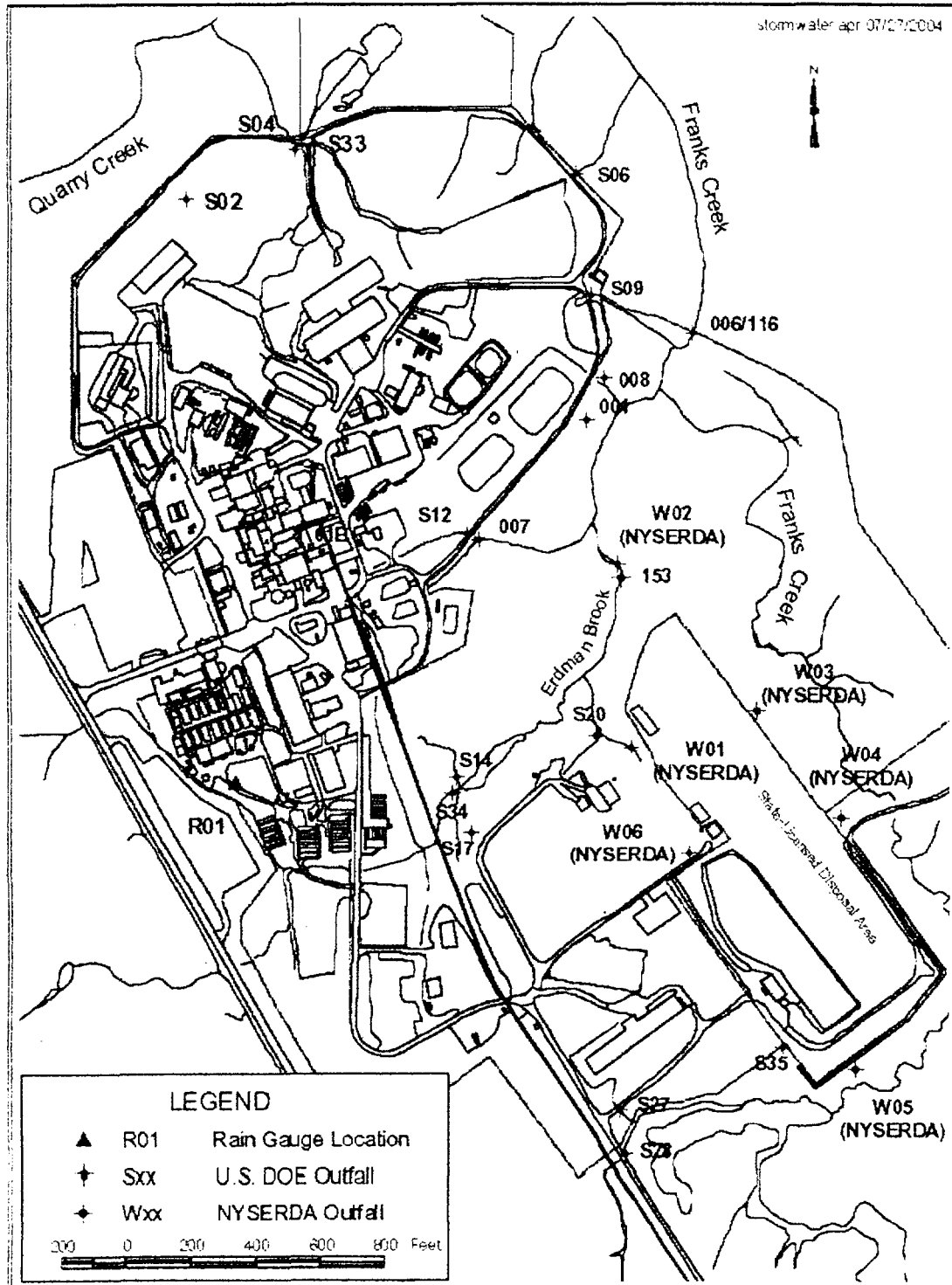
The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below:

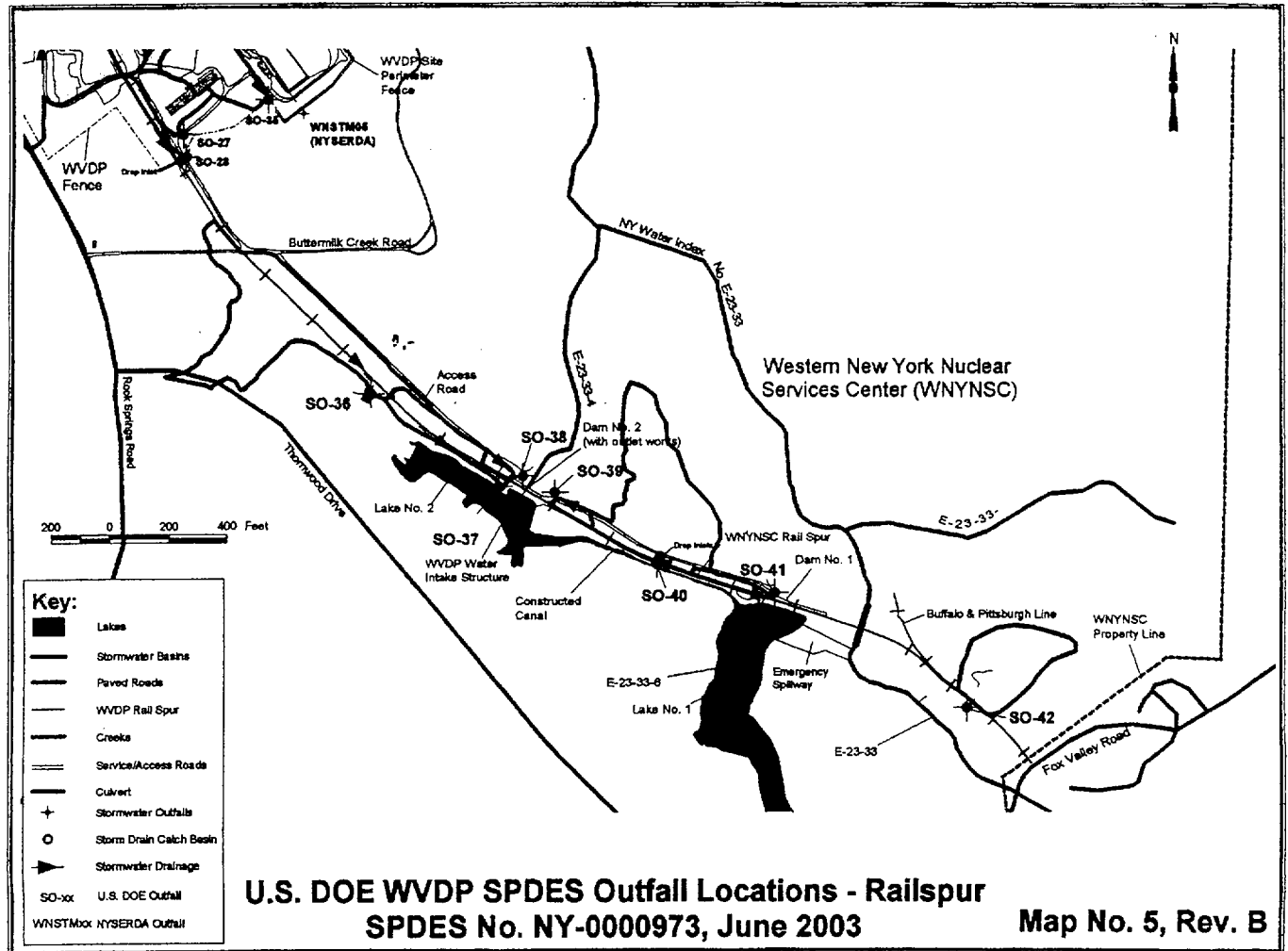
SPDES No.: NY 000 0973

MAP No. 4, Rev. C SPDES Permit No. NY-0000973



SPDES Outfall and Compliance Point Locations - U.S. DOE WVDP, June 2004

Wetlands_mspur.apr 06/17/2003



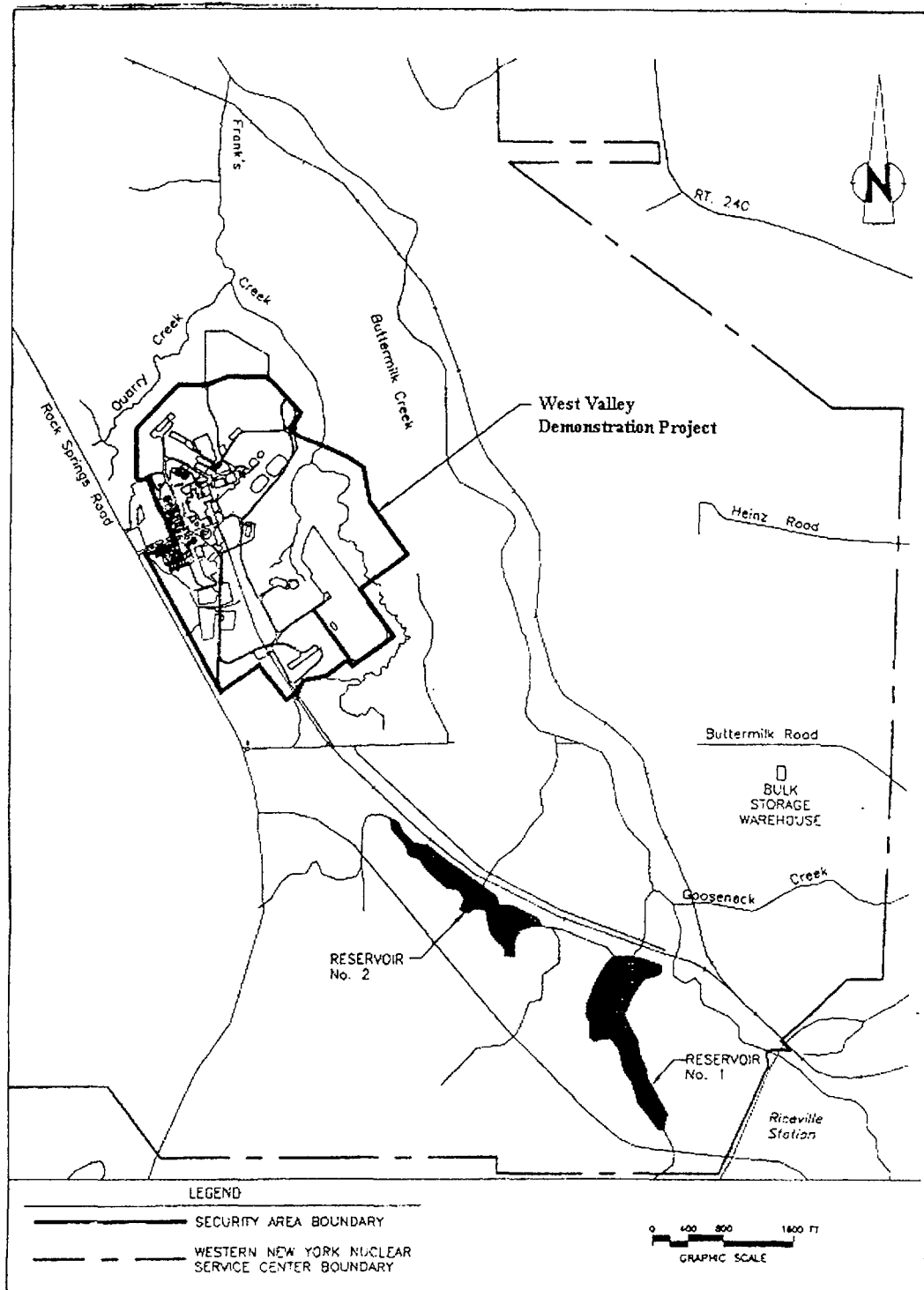
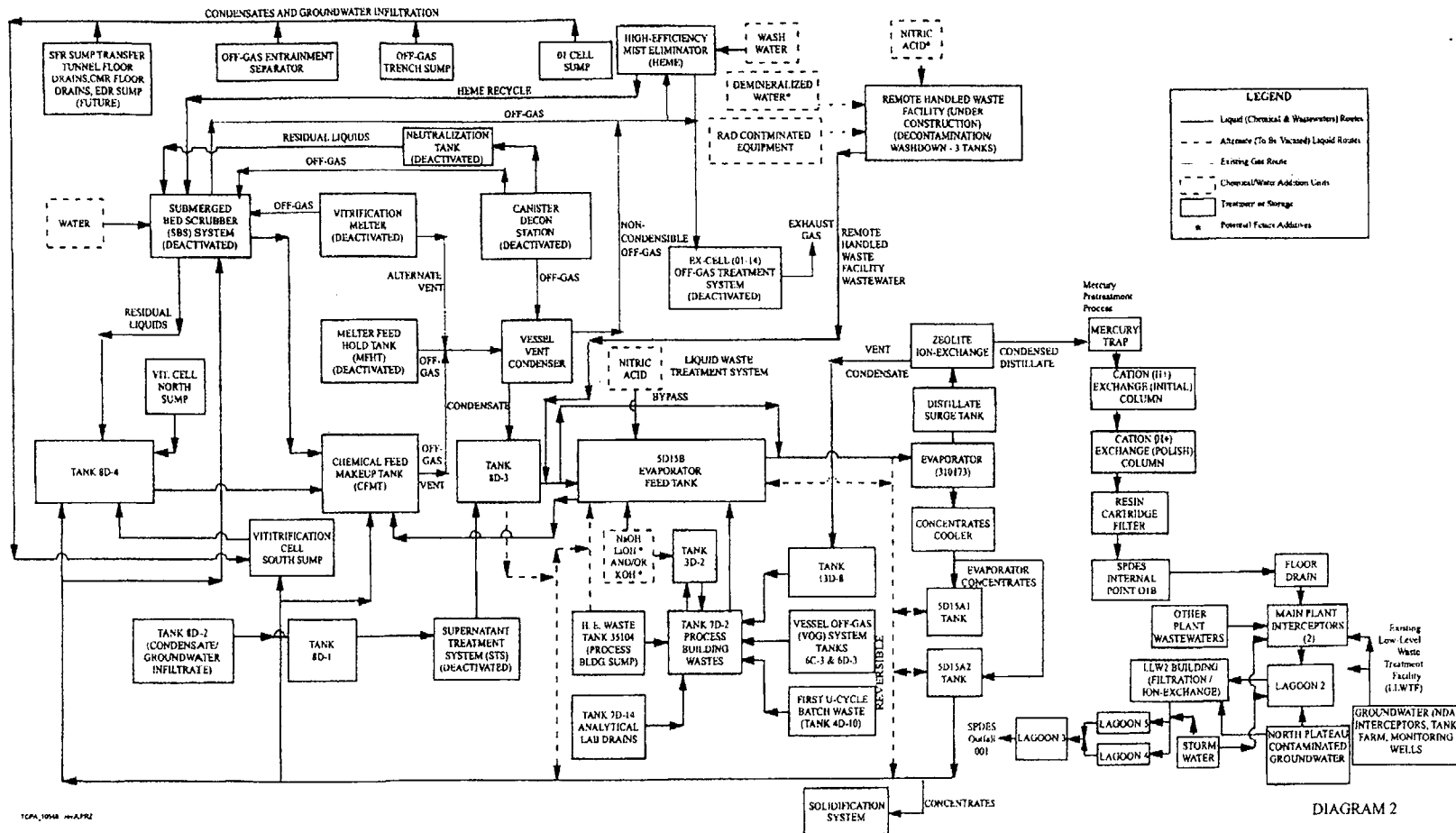


Figure 2. Location of Water Supply Reservoirs

Liquid Waste Treatment System (LWTS) Source Flow Diagram



TCAL 1048 10/10/92

SPDES Permit No. NY-0000973
West Valley Demonstration Project

REVISION A
APRIL 4, 2003

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. The permittee shall develop and implement a Best Management Practices (BMP) plan, to prevent, or minimize the potential for, release of significant amounts of toxic or hazardous pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and storm water discharges including, but not limited to, drainage from raw material storage. Permittee has submitted BMP plan to the Regional Water Engineer on Aug. 11, 1994.
2. The permittee shall review all facility components or systems (including material storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where toxic or hazardous pollutants are used, manufactured, stored or handled to evaluate the potential for the release of significant amounts of such pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. For hazardous pollutants, the list of reportable quantities as defined in 40 CFR, Part 117 may be used as a guide in determining significant amounts of releases. For toxic pollutants, the relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are listed as toxic pollutants under Section 307(a)(1) of the Clean Water Act or as hazardous pollutants under Section 311 of the Act or that are identified as Chemicals of Concern by the Industrial Chemical Survey. As a minimum, the review shall specifically address the following substances: Freon and Zinc.

3. Whenever the potential for a significant release of toxic or hazardous pollutants to State waters is determined to be present, the permittee shall identify Best Management Practices that have been established to minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider typical industry practices such as spill reporting procedures, risk identification and assessment, employee training, inspections and records, preventive maintenance, good housekeeping, materials compatibility and security. In addition, the permittee may consider structural measures (such as secondary containment and erosion/sediment control devices and practices) where appropriate.
4. Development of the BMP plan shall include sampling of waste stream segments for the purpose of toxic "hot spot" identification. The economic achievability of technology-based end-of-pipe treatment will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology.
5. The BMP plan shall be documented in narrative form and shall include any necessary plot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. USEPA guidance for development of storm water elements of the BMP is available in the September 1992 manual "Storm Water Management for Industrial Activities," USEPA Office of Water Publication EPA 832-R-92-006 (available from NTIS, (703)487-4650, order number PB 92235969). A copy of the BMP plan shall be maintained at the facility and shall be available to authorized Department representatives upon request. As a minimum, the plan shall include the following BMP's:

| | | |
|-------------------------------------|----------------------------|--------------------------------|
| a. BMP Committee | e. Inspections and Records | i. Security |
| b. Reporting of BMP Incidents | f. Preventive Maintenance | j. Spill prevention & response |
| c. Risk Identification & Assessment | g. Good Housekeeping | k. Erosion & sediment control |
| d. Employee Training | h. Materials Compatibility | l. Management of runoff |
6. The BMP plan shall be modified whenever changes at the facility materially increase the potential for significant releases of toxic or hazardous pollutants or where actual releases indicate the plan is inadequate.

* A "hot spot" is a segment of an industrial facility; including but not limited to soil, equipment, material storage areas, sewer lines etc.; which contributes elevated levels of problem pollutants to the wastewater and/or storm water collection system of that facility. For the purposes of this definition, problem pollutants are substances for which end of pipe treatment to meet a water quality or technology requirement may, considering the results of wastestream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the end of pipe concentration of that same pollutant so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule.

| Action Code | Outfall Number(s) | Compliance Action | Due Date |
|-------------|----------------------|--|----------|
| | | Stormwater Sampling Program: Twenty (20) stormwater outfalls are grouped into eight (8) groups. Permittee shall sample the stormwater runoff using the same protocol as conducted during the 1995 storm event by selecting one outfall from each group to be the representative outfall for that group. Sample results shall be summarized in the same format as submitted in the 2003 permit modification application. | 01/01/07 |
| | Appropriate outfalls | Paraquat Dichloride - Herbicide (Gramoxone Extra) Sampling Program: Permittee shall take one grab sample from each stormwater outfalls and regular outfalls which contain areas with Herbicide application and analyze for Paraquat Dichloride (composition of Gramoxone Extra). EPA Method 549.2 (HPLC-UV) shall be used to analyze Paraquat Dichloride. Samples shall be collected at the reasonable time after the Herbicide application and sampling results shall be summarized in a report with Herbicide application information included. | 07/01/07 |

The above compliance actions are one time requirements unless otherwise stated. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION / PERMIT", the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/ PERMIT."

- b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice under terms of the General Conditions (Part II), Section 5. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
1. A short description of the non-compliance;
 2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
 3. A description or any factors which tend to explain or mitigate the non-compliance; and
 4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c) and (f) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed within 90 days of the Effective Date of this Modification.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water. The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY _____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: () - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: () - ### - ####

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of three years.
- (f) If, upon November 1, 1997, the permittee has installed signs that include the information required by 17-0815-a(2)(a) of the ECL, but do not meet the specifications listed above, the permittee may continue to use the existing signs for a period of up to five years, after which the signs shall comply with the specifications listed above.
- (g) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

(h) Following Outfalls have received NYSDEC waiver decision on February 28, 1998:

| Outfall No. | Waiver Decision | Reason |
|----------------|-----------------|---|
| 001, 007 & 008 | Granted. | These outfalls are within fenced and patrolled areas, and are inaccessible to the public. |

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of three years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

- ☒ (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.
- ☐ (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.
- ☐ (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the
☐ Regional Water Engineer and/or ☐ County Health Department or Environmental Control Agency specified below.

Send the **original** (top sheet) of each DMR page to:

Department of Environmental Conservation
 Division of Water
 Bureau of Water Compliance Programs
 625 Broadway, 4th Floor
 Albany, New York 12233-3506
 Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:

Department of Environmental Conservation
 Regional Water Engineer, Region 9
 270 Michigan Avenue
 Buffalo, NY 14203-2999
 Phone: 716-851-7070

Send an **additional copy** of each DMR page to:

Cattaraugus County Health Dept.
 1701 Lincoln Ave., Suite 4010
 Olean, New York 14760-1154

- c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2 (a) and 750-2.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

| | | |
|------|------------------|---------|
| bcc; | J. P. Bleech | AC-EA |
| | L. J. Chilson | AC-NSQA |
| | J. R. Gerber | AC-ESHQ |
| | A. H. Konetzni | AC-PRES |
| | W. M. Wierzbicki | AC-EA |